BITCOIN GEN WHITEPAPER

Introduction

Cryptocurrencies are here to stay and there are a number of reasons why it would. Blockchain in general will enable decentralization and establish trust among unknown individuals or entities. Cryptocurrency will bring prosperity, equality and transparency.

Cryptocurrency is one instrument that can end poverty and serve basic needs. This is due to the fact that network effects are built intrinsically and adoption of it even at a very meager level would benefits the entire community that includes the poor and rich.

Transparency would dictate funds intended as Donations, Charity, Government spending go to the right places.

Even though the advantages are huge, the adoption rate is a miniscule. The entire cryptocurrency market capital is about $257 billion which is still very low when compared to the stock market or bond market. But look at the positive, cryptocurrency market now exceeds the total circulating currencies of Russia. Even then there is a lot to improve.

Much of the value the cryptocurrency brings is from trading and actual transaction in exchange of goods and services is way less. Cryptocurrency is gaining popularity but for the wrong reasons.

It is seen as a way to quickly make money and because of this a lot of fraud and fake projects have emerged. This has further slowed down its massive adoption as a genuine instrument for transaction.

Existing concerns and problems

Bitcoin's distributed consensus evolved and delivered the world a more efficient and flexible technology when Ethereum was first proposed by Buterin in his paper titled "A Next Generation Smart Contract & Decentralized Application Platform (2013). With increased efficiency, speed and flexibility, it became possible to create innovative decentralized solutions for diverse and wide-ranging use-cases.

Ethereum's abstract foundational layer and Solidity, its coding language, enabled the creation of smart contracts, decentralized applications (DApps) and decentralized autonomous organizations (DAOs).

The dynamic strengths of Ethereum lie in its core elements: scalability, standardization, feature-completeness, ease of development and interoperability (Buterin, 2013, p. 13). Smart contracts enjoy all these quality attributes of the Ethereum ecosystem.

BTCG ushered in as a direct consequence of the gradual evolution of both these blockchains. In essence, it surfaced into existence as an ERC20 version of Bitcoin possessing the vast capabilities of the Ethereum platform.

One of the most critical aspects of Bitcoin's implementation was to remove the need for third-party trust and thus the unavoidable transaction costs associated with such intermediary arrangements.

Nakamoto documented that such transaction costs limited the minimum practical transaction size and the possibility for small casual payments (2008). While elaborating Bitcoin's implementation on P2P Foundation for the very first time, Nakamoto observed that such intermediaries made micropayments impossible (2009).

Ironically, the same phenomenon currently limits the minimum practical transaction size on Bitcoin and inhibits users to transact

small transactions due to its ever-increasing and highly volatile market value.

The growing transaction costs of Bitcoin have started to resemble those very arrangements it was initially supposed to counter. At present, an average Bitcoin transaction costs around $2 to 5$ or upwards of around 30,000 satoshis. The Bitcoin transaction speed presents another challenge.

The average Bitcoin block time is around 10 minutes and it currently takes 6 confirmations or around 60 minutes to achieve transaction finality.

Both these factors limit the adoption of Bitcoin as a sustainable medium of digital exchange undermining the ingenious soul of the originally-proposed Bitcoin ecosystem. It is becoming more challenging to use Bitcoin as an efficient electronic cash system for everyday use. Imagine virtually transacting goods or services under $2 or when transaction times are of critical relevance.

Solution

It appears that Bitcoin's original philosophy—which presented the world with a revolutionary alternative against the traditional banking and fiat systems—is diluting with its ever-growing transaction costs, slow block times and never-ending forking debates.

Multiple Bitcoin forks (BCH, BSV, BTG) have recently emerged all trying to resolve one or more of its prevailing concerns: scalability, block size, and the increasingly undemocratic mining.

But neither of them currently has the capacity to efficiently solve all the underlying problems engulfing the Bitcoin ecosystem. A more fundamental Bitcoin modernization is thus needed to realize its original vision. At present, there exist three documented forks of Bitcoin, namely Bitcoin Cash, Bitcoin Satoshi Vision and Bitcoin Gold.

The issue of slow block times has yet to be addressed by each of these forks. In overall, the current Bitcoin ecosystem can best be described as a true genesis of the crypto-universe and a highly volatile digital store-of-value mechanism.

Customers are always left to choose between Bitcoin and Altcoins. Much of the transactions that occur are attributed to mere trading/ investing. Payment against goods/ services is still very low. As a payment service, user would always prefer Bitcoin due to its compatibility and popularity.

However, the transactions are slow and there are no automated contracts to oversee. We believe we can bridge this gap by getting BTC features onto Ethereum platform which is among the most advanced blockchains out there.

Bitcoin GEN is a fully decentralized Internet-of-value protocol for global payments. The specific applications include peer-to-peer transactions and exchange platforms. Any users that operate on

the BTCG coin can enjoy instant, secure and nearly free global financial transactions of any size.

The evolution of Bitcoin's blockchain into a more efficient and flexible Ethereum infrastructure allowed developers to create innovative and decentralized applications on top of its abstract foundation layer. The foundational layer enabled the possibility of creating truly decentralized and trust-less crypto-currencies.

This capability allowed us to create a peer-to-peer electronic cash and payment system in the form of BTCG. BTCG, as a tokenized version of Bitcoin's core ideals, solves the aforementioned concerns by offering faster transaction speeds, lower transaction costs and the ability to work with smart contracts to the global community of crypto-enthusiasts and beyond.

As an electronic cash and payment system, BTCG aspires to sustainably represent the core attributes of Bitcoin on the Ethereum blockchain without experiencing the hassles of slow block times, higher transaction costs, centralized mining and

continuous forks while also providing the support for smart contracts. With Ethereum's smart contract capabilities, BTCG strives to implement all the available use-cases such contracts offer in furthering BTCG's adoption as a truly global and everyday-usable digital currency and payment mechanism.

As BTCG exists over the Ethereum's foundational layer, its ecosystem's characteristics — transaction costs, transaction speed and smart contract capability—mirror the systematic attributes of Ethereum.

A BTCG transaction roughly costs around $0.15 to $0.5 and its block time is at least 10 times faster than Bitcoin and all its recent and upcoming forks.

BTCG vs Ethereum

BTCG is an Ethereum-enabled cash and electronic payment system and ether — the crypto-fuel for the Ethereum network, serves to validate BTCG transactions over the Ethereum blockchain.

As a fuel, Ether supports the overall Ethereum ecosystem. To clarify, ether was never meant to be a currency on the Ethereum. Instead, its purpose is to serve as a fuel for operating the distributed application platform on Ethereum.

It is a form of payment made by the clients of the platform to the machines executing the requested operations. On the other hand, BTCG, in its purest sense, is just an everyday-usable digital currency and optimized payment system i.e. a medium of faster and cheaper exchange and store of value.

Why Bitcoin GEN ?

BITCOIN GEN (BTCG) is heading for a true peer-to-peer electronic cash system. To achieve this, we have tried to stick to principals laid down in original bitcoin whitepaper by Satoshi Nakamoto.

Our vision is to build an ecosystem that consists of Apps, entertainment ware, Tools, Gateways, and other technical revolutions in which BTCG is the circulating payment method.

21 Million - the magic number

The total number of Bitcoins to ever be mined stands at 21 million. BITCOIN GEN (BTCG) total supply is also capped to 21 million. There can never be more than 21 million BTCG in wild.

Excellent Performance

BITCOIN GEN runs on Ethereum blockchain, a powerhouse smart contract platform.

It enables developers to build decentralized applications. ETH is the native currency for the Ethereum platform and also works as the transaction fees to miners on the Ethereum network.

Figure 3: Problems of Bitcoin (Roger Ver,2017)

BTCG runs on Ethereum blockchain as ERC20 token. Ethereum is the pioneer for blockchain based smart contracts. When running on the blockchain a smart contract becomes like a self-operating computer program that automatically executes when specific conditions are met.

On the blockchain, smart contracts allow for code to be run exactly as programmed without any possibility of downtime, censorship, fraud or third-party interference. It can facilitate the exchange of money, content, property, shares, or anything of value.

Underpinning Ethereum is the Ethereum algorithm for proof of work mining, which is the Ethash hashing algorithm.

This process requires a miner to retrieve data from a block header to form an input, and then repeatedly hash that input using a cryptographic hashing algorithm until an output hash value of a fixed length is produced.

Bitcoin GEN specifications

- Name – Bitcoin GEN
- Symbol – BTCG
- Blockexplorer – Etherscan
- Total supply – 21,000,000 BTCG
- Circulating supply - 12,000,000 BTCG
- Decimals – 8

Conclusion

We have discussed the fundamental design, concept and implementation features of BTCG as a tokenized version of Bitcoin on the Ethereum blockchain serving as an efficient, robust and more flexible peer-to-peer electronic cash and payment system.

We started with the evolution of trust-less consensus mechanisms and laid down the progress of Bitcoin's distributed consensus into Ethereum's more flexible, diverse and interoperable abstract foundational layer.

We then discussed how BTCG came into existence as a direct consequence of Bitcoin's evolution into what later became to be known as Ethereum's blockchain.

We highlighted the prevailing concerns of slow block times, higher transaction costs, centralized mining, and ever-growing forks of Bitcoin's ecosystem – which currently lack smart contract support, and how BTCG may solve all these issues while functioning as an ERC20 version of Bitcoin's core ideals on

Ethereum's vastly capable and continuously-optimizing ecosystem.

We also documented BTCG's fundamentals, its technical aspects, and how the committed and diverse global community is critical for BTCG's general awareness and mainstream adoption.

We believe, with adoption and awareness, BTCG may allow such global communities to experience Bitcoin once again on a more flexible and efficient blockchain without having to go through the ideological and politically-charged debates about the ever-growing Bitcoin forks.

References

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